

Asthma

Disease Information Packets – Slide Sets



Public Health Services,
Community Health Statistics

8/2010

What is Asthma?

- Asthma is a disease in which the airways of the lungs tighten and swell in response to certain triggers.
- Asthma symptoms include:
 - Wheezing
 - Breathlessness
 - Chest tightness
 - Nighttime or early morning coughing

What is an Asthma Attack?

- **“Asthma attacks” happen when a “trigger” causes the sides of the airways in the lungs to swell, and the airways shrink.**
 - **Less air gets into the lungs, and the person has difficulty breathing.**
 - **Triggers include:**
 - **Tobacco smoke**
 - **Dust Mites**
 - **Pets**
 - **Cockroaches/other pests**
 - **Mold**
 - **Outdoor air pollution**



Who Gets Asthma?

- Asthma is the most common long-term disease in children, but also occurs in adults. (CDC)
- About 23 million Americans, nearly 7 million of them children, have asthma. (USEPA)



Demographic Risk Factors

- Race / Ethnicity
 - Blacks and Hispanics are more likely to have asthma than other racial/ethnic groups.
- Genetics/Family History
 - If one parent has asthma, children have a 1 in 3 chance of having asthma.
 - If both parents have asthma, children have a 7 in 10 chance of having asthma.



Demographic Risk Factors

- Age
 - Children are diagnosed with asthma more often than adults.
 - Individuals over the age of 65 account for nearly 60% of asthma deaths.
- Gender
 - Among adults, women are more often diagnosed with asthma than men.



Social and Behavioral Risk Factors

- Low Birth Weight

- Infants with birth weights less than 5.5 lbs have a higher risk of developing asthma during childhood and teenage years than larger infants. (Seidman, 1991)

- Obesity

- Nationally, new cases of asthma are about 1.5 times higher among overweight children than among children who are at a healthy weight. (Gililand, 2003)



Social and Behavioral Risk Factors

- Living in Polluted Areas
 - Air pollutants have been associated with impaired breathing in children with asthma. (NIH)
 - Air pollution has long-term effects on lung development in children. (NIH)
 - Children who played three or more sports in areas with high ozone levels were three times more likely to develop asthma than inactive children. (McConnell, 2002)



Sources: -(NIH) National Institute of Environmental Health Sciences. Respiratory Disease and Environment. Department of Health and Human Services. Triangle Park, NC. May 2008. -(McConnell, 2002) McConnell R, Berhane K, Gilland F, London SJ, Islam T, Gauderman WJ, Avol E, Margolis HG, Peters JM. (2002). Asthma in exercising children exposed to ozone: a cohort study. Lancet 359: 386-391.

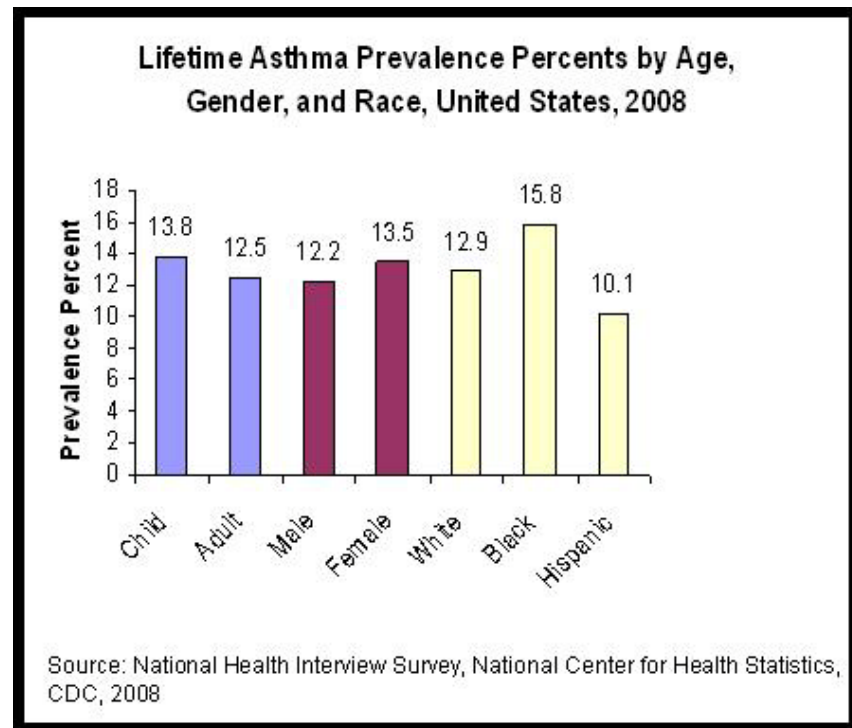
Intermediate Outcomes

- Atopic Dermatitis
 - Causes chronic skin inflammation
 - Nationally, 50-80% of patients with atopic dermatitis have, or develop, asthma. (Correale, 1999)
- Allergic Rhinitis
 - “Hay Fever”
 - Americans with allergic rhinitis are 3 times more likely to develop asthma. (Pawankar, 2004)
- Premature or Low Birth Weight Infants
 - Women who have asthma are more likely to give birth to premature or low birth weight infants. (Moyer, 2006)



National Statistics

- About 12 million Americans reported at least one asthma attack in the previous year.
- Asthma is responsible for:
 - 17 million of all hospital and physician office visits each year in the U.S.
 - 2 million emergency department visits each year in the U.S.
- Nationally, in a classroom of 30 children, 3 are likely to have asthma.



National Disparities

- Black Americans are 3 times more likely to be hospitalized, or die, from asthma.
- Nationally, twice as many Puerto Ricans had asthma than non-Hispanic whites in 2005.
- In 2005, American women had a 20% higher likelihood of having ever been diagnosed than men, but girls were less likely than boys to have been diagnosed with asthma.
- In the United States, women have a 45% more deaths from asthma than men.

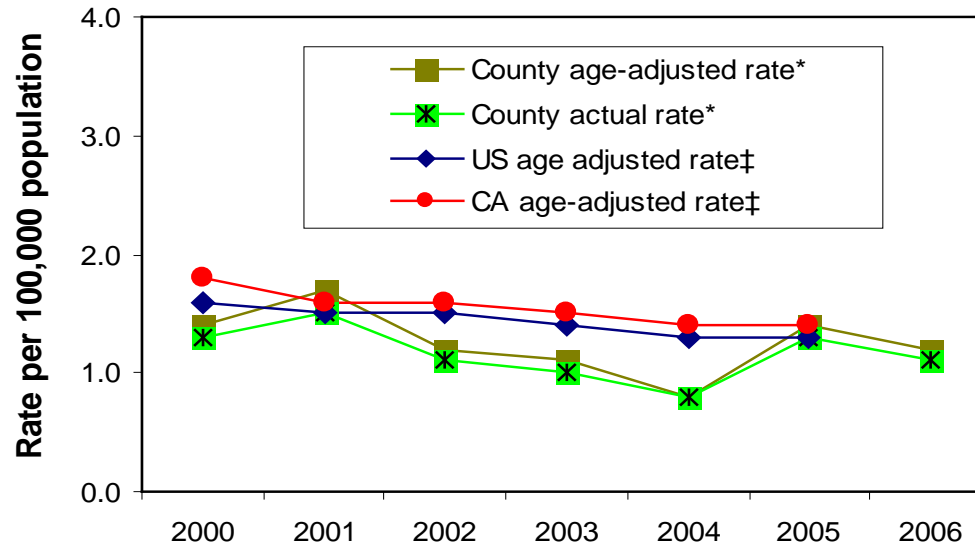
Costs

- Asthma costs the United States almost \$18 billion, or about \$3000 per patient, each year.
- Nationally, in 2003, nearly 13 million school days were lost due to asthma among children with asthma.
 - Approximately 8 school days per year per child with asthma.



National, State, and Local Statistics

Asthma Rates



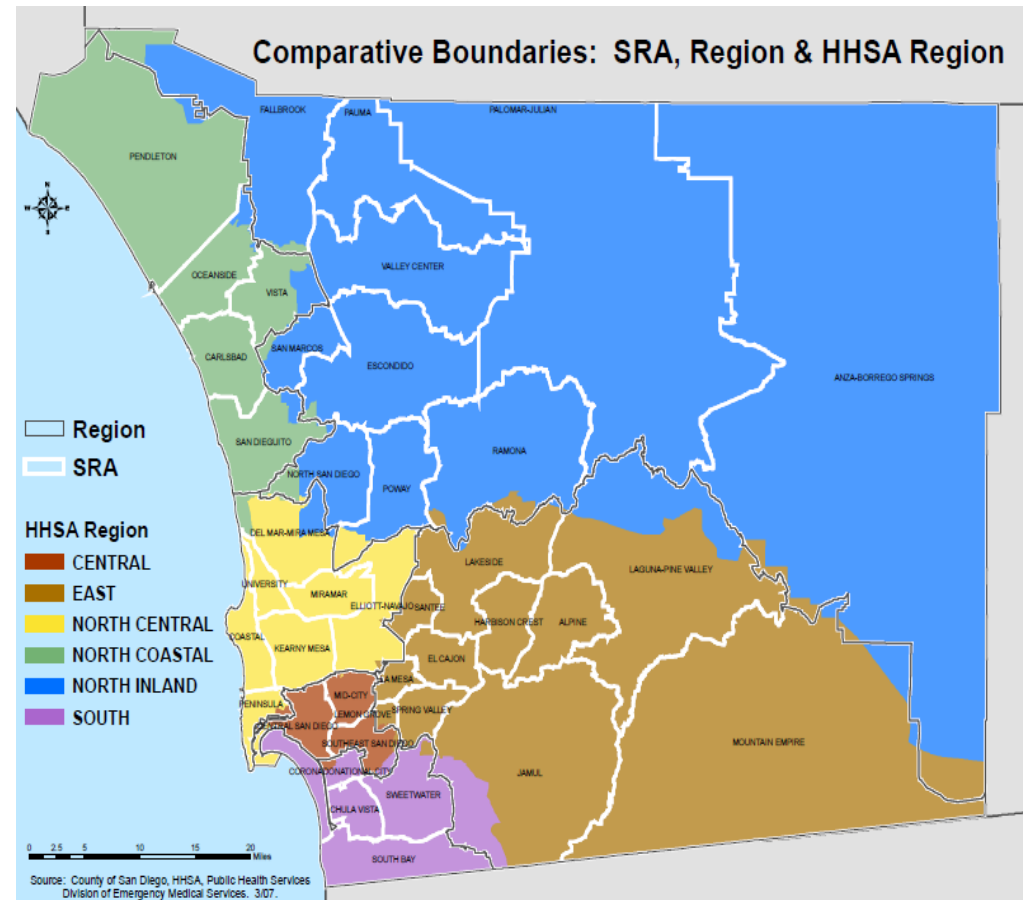
* Source: Death Statistical Master Files (CA DPH), CoSD, HHSA, Community Epidemiology 2000-2006; SANDAG, Current Population Estimates, 9/27/20006.

‡ Source: CDC, NCHS, Compressed Mortality Files. On-line database accessed 4/15/2009:
<http://wonder.cdc.gov/cmfi-icd10.html>

- The age-adjusted death rate from asthma was approximately 1.4 per 100,000 for the years 2000-2006.
- The County age-adjusted asthma death rate has been comparable to the age-adjusted rates for the U.S. and California since 2000.

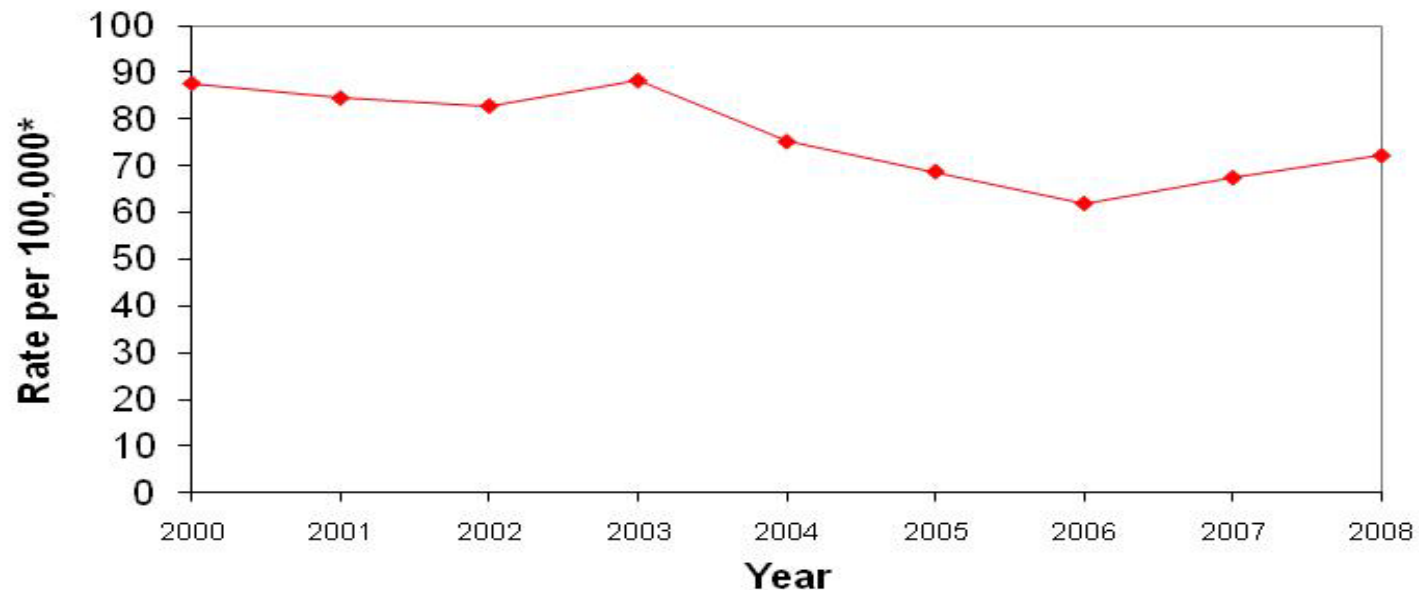
Local Statistics

- In 2005, 33% of San Diego County adults with asthma had a written asthma management plan. (CHIS)
- On average, 35 residents die from asthma every year.
- Central Region Residents had highest rate of asthma hospitalization.



Local Statistics

Asthma Hospitalization: Actual Rates* per 100,000 in San Diego County, 2000-2008



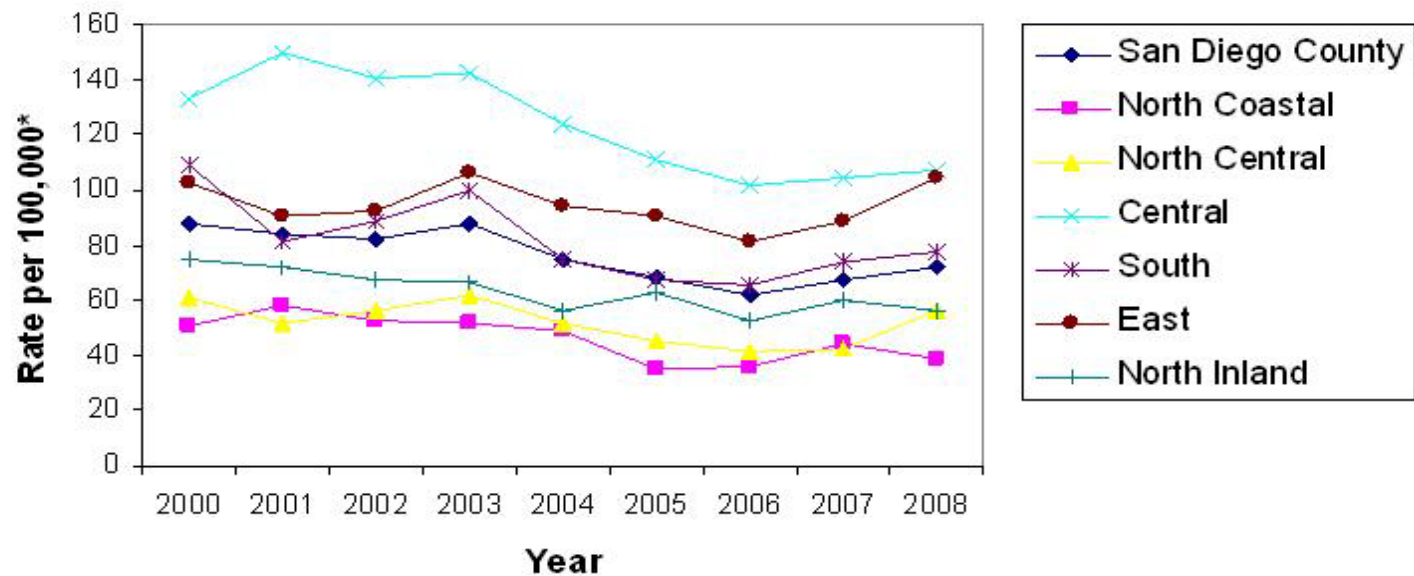
*County actual rates are per 100,000 individuals.

Source: San Diego County Community Profiles, CoSD HHSA Community Epidemiology, 2009.

Prepared by County of San Diego (CoSD), Health & Human Services Agency (HHSA), Community Health Statistics, 4/21/2010.

Local Statistics

Asthma Hospitalization: Actual Rates* per 100,000 in San Diego County Regions, 2000-2008

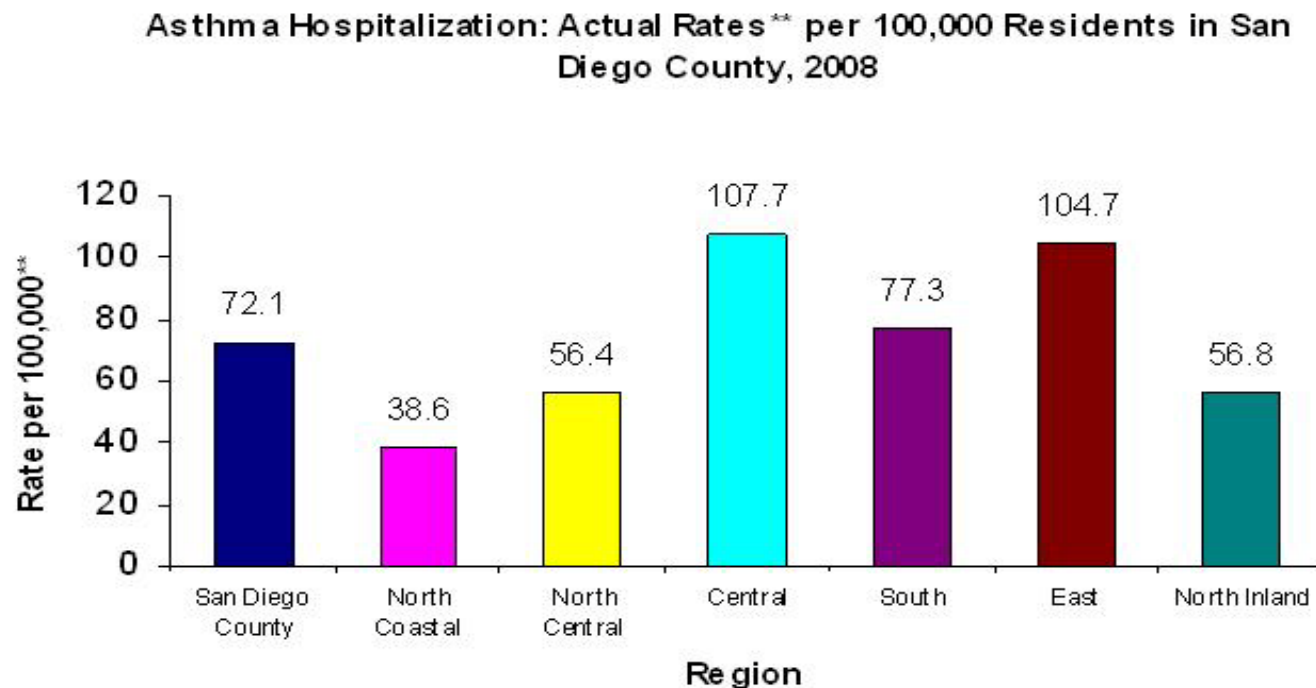


*County actual rates are per 100,000 individuals.

Source: San Diego County Community Profiles, CoSD HHSA Community Epidemiology, 2009.

Prepared by County of San Diego (CoSD), Health & Human Services Agency (HHSA), Community Health Statistics, 4/21/2010.

Local Asthma Rates



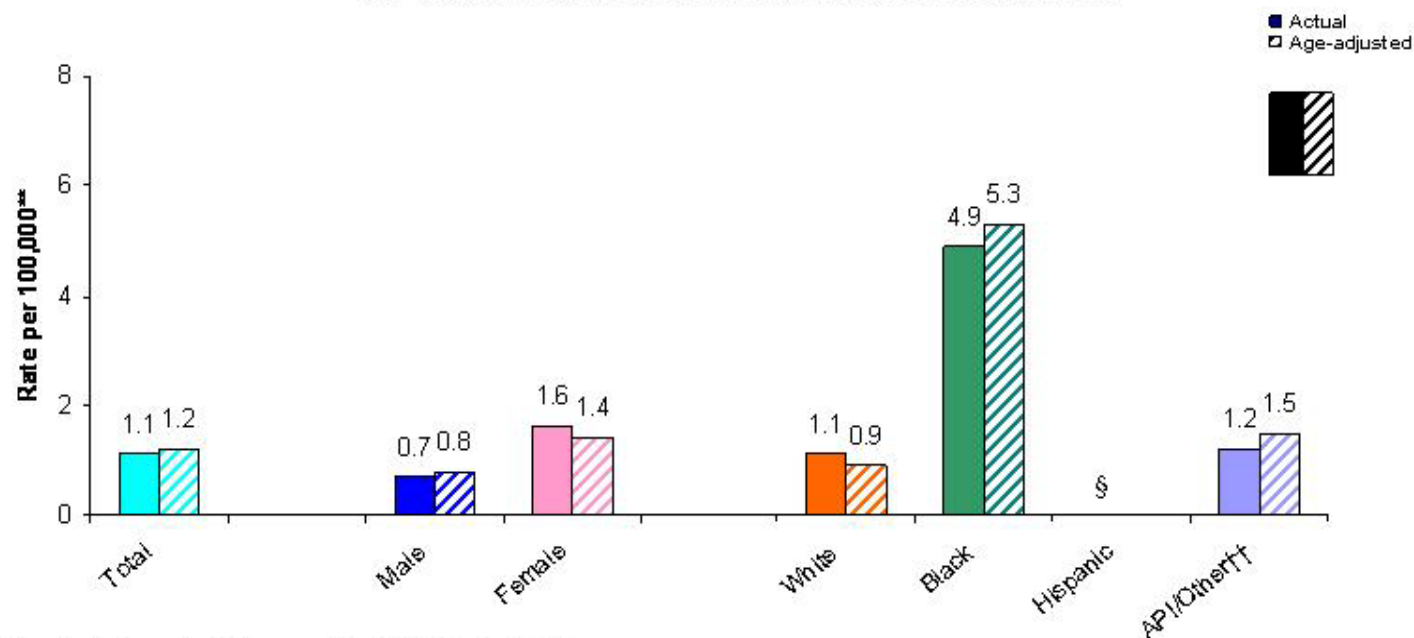
**County actual rates are per 100,000 individuals.

Source: San Diego County Community Profiles, CoSD HHSA Community Epidemiology, 2006; SANDAG, Current Population Estimates, 9/2009.

Prepared by County of San Diego (CoSD), Health & Human Services Agency (HHSA), Community Health Statistics, 4/21/2010.

Local Disparities

Asthma Deaths*: Actual and Age-adjusted Rates
per 100,000 Residents of San Diego County, 2006**



*Asthma Death refers to (underlying cause of death) ICD-10 codes J45-J46.

**County actual rates are per 100,000 individuals. County age-adjusted rates per 100,000 2000 US standard population.

§ Rates not calculated for fewer than 5 events.

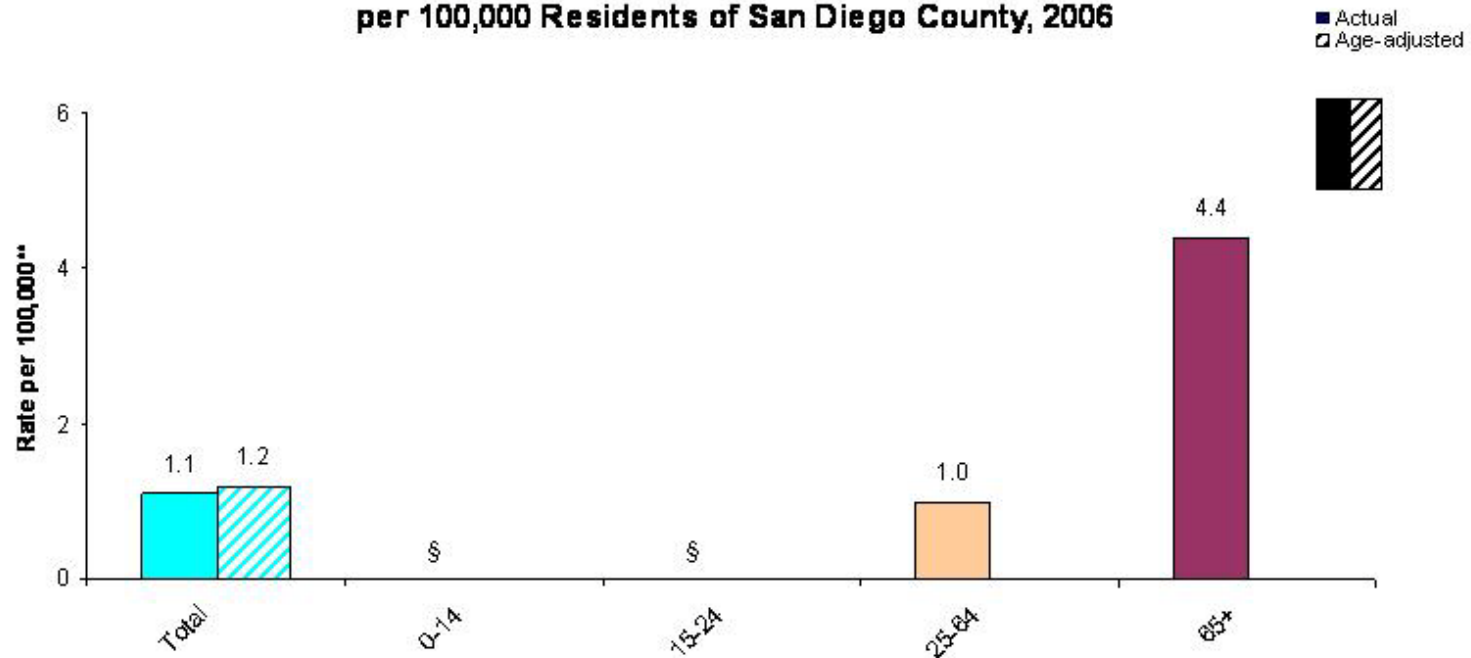
†† AP/Other includes Asian, Pacific Islanders, those reporting 2 or more race/ethnicities, other, or had missing information.

Source: Death Statistical Master Files (CADPH), Co SD HHSA Community Epidemiology, 2006; SANDAG, Current Population Estimates, 9/27/2006.

Prepared by County of San Diego (Co SD), Health & Human Services Agency (HHSA), Community Health Statistics, 9/29/2008.

Local Disparities

Asthma Death* Rates by Age Group
per 100,000 Residents of San Diego County, 2006**



*Asthma Death refers to (underlying cause of death) ICD-10 codes J45-J46.

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Warning Signs of Asthma for Children

- Coughing at night
- Has the cold or the flu
- Has a fever
- Stuffy or runny nose
- Tickle in the throat
- Sneezing and watery eyes
- Tightness in the chest
- Feels weak or tired
- Headaches
- Restless
- Pale face
- Dark circles under the eyes



Prevention of Asthma Attacks

- Quit smoking
- Avoid secondhand smoke exposure
- Clean house and bedding weekly
- Keep pets outside
- Store food in airtight containers
- Dry damp or wet things completely
- Monitor the AQI (Air Quality Index)

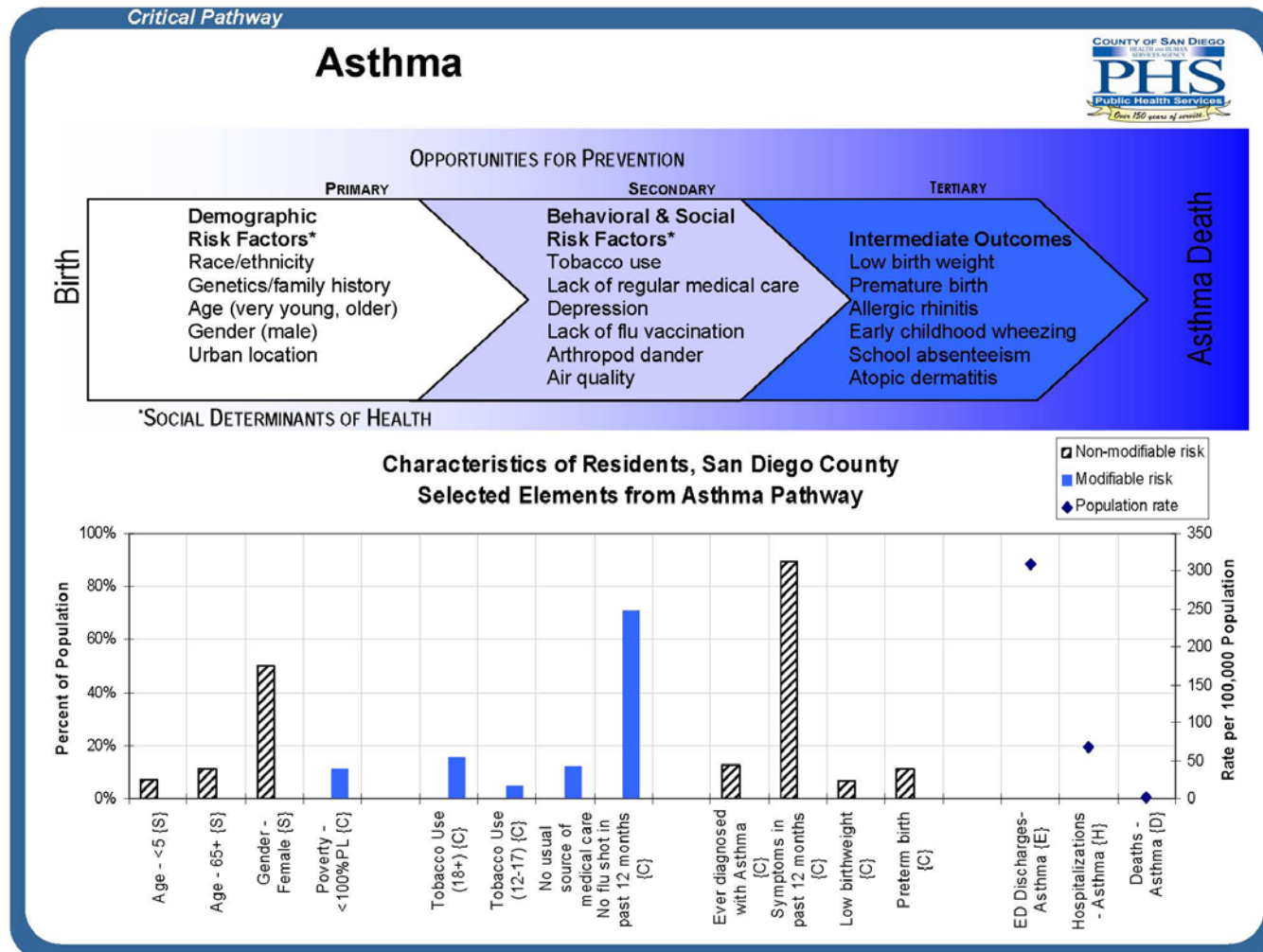


Warning Signs of an Asthma Attack

- Difficulty breathing
- Shortness of breath
- Severe wheezing when breathing
- Coughing with asthma that won't stop
- Very rapid breathing
- Chest pain or pressure
- Tightened neck and chest muscles
- Difficulty talking or performing normal daily tasks
- Feelings of anxiety or panic
- Pale, sweaty face
- Blue lips or fingernails
- Or worsening symptoms despite use of medications



Critical Pathway for Asthma



04/09

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